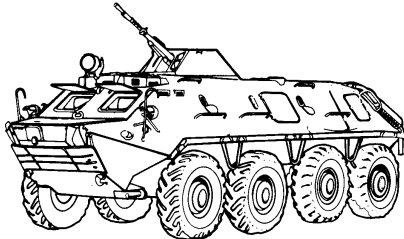


## Russian Armored Personnel Carrier BTR-60PB

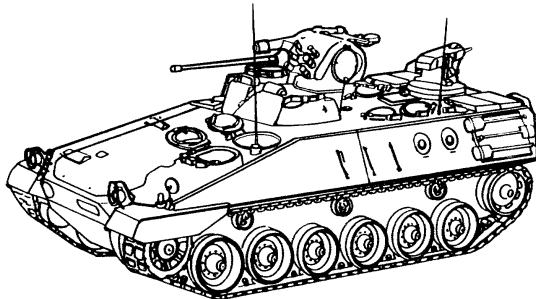
	<table><tr><th>Weapons &amp; Ammunition Types</th><th>Typical Combat Load</th></tr><tr><td>14.5-mm turret MG API, API-T</td><td>500</td></tr><tr><td>7.62-mm coax PKT MG Light ball, Ball-T, API, API-T, I-T</td><td>2,000</td></tr></table>	Weapons & Ammunition Types	Typical Combat Load	14.5-mm turret MG API, API-T	500	7.62-mm coax PKT MG Light ball, Ball-T, API, API-T, I-T	2,000
Weapons & Ammunition Types	Typical Combat Load						
14.5-mm turret MG API, API-T	500						
7.62-mm coax PKT MG Light ball, Ball-T, API, API-T, I-T	2,000						
<p><b>SYSTEM</b> <b>Alternative Designations:</b> INA <b>Date of Introduction:</b> 1966 <b>Proliferation:</b> At least 33 countries <b>Description:</b> Crew: 2 Troop Capacity: 8 Combat Weight (mt): 10.3 Chassis Length Overall (m): 7.22 Height Overall (m): 2.3 Width Overall (m): 2.82 Ground Pressure (kg/cm<sup>2</sup>): 0.90 Drive Formula: 8 x 8</p> <p><b>Automotive Performance:</b> Engine Type: 2x 90-hp Gasoline Cruising Range (km): 500 Speed (km/h):Max Road: 80 Max Off-Road: INA Average Cross-Country: INA Max Swim: 10 Fording Depths (m): Amphibious <b>Radio:</b> R-123</p> <p><b>Protection:</b> Armor, Turret Front (mm): 7 Applique Armor (mm): Available Explosive Reactive Armor (mm): N/A Active Protective System: N/A Mineclearing Equipment: N/A Self-Entrenching Blade: N/A NBC Protection System: Collective Smoke Equipment: N/A</p> <p><b>ARMAMENT</b> <b>Main Armament:</b> Caliber, Type, Name: 14.5-mm (14.5 x 114) heavy MG, KPVT Rate of Fire (rd/min): 150 practical Loader Type: Belt-fed Ready/Stowed Rounds: 50/450 Elevation (°): -5 to +30 Fire on Move: Yes</p> <p><b>Auxiliary Weapon:</b> Caliber, Type, Name: 7.62-mm machinegun, PKT Mount Type: Coax</p>	<p>Maximum Aimed Range (m): 2,000 Max Effective Range (m): Day: 1,000/ 400-500 on the move Night: N/A Fire on Move: Yes Rate of Fire (rd/min): 250 practical/650 cyclic, 2-10 round bursts</p> <p><b>ATGM Launcher:</b> N/A <b>Firing Ports:</b> 3 on each side</p> <p><b>FIRE CONTROL</b> <b>FCS Name:</b> N/A <b>Main Gun Stabilization:</b> N/A <b>Rangefinder:</b> N/A <b>Infrared Searchlight:</b> Yes <b>Sights w/Magnification:</b> Gunner: Day: PP-61AM, 2.6x Field of View (°): 23 Acquisition Range (m): 2,000 Night: N/A <b>Commander Fire Main Gun:</b> No</p> <p><b>VARIANTS</b> <b>BTR-60PBK:</b> Command APC variant, with three additional radios. <b>BTR-60PB FAC:</b> Turreted forward air control variant without gun.</p> <p><b>BTR-60PZ:</b> Final production model, with 1PZ-2 roof-mounted periscope and high angle-of-fire turret.</p> <p><b>BTR-70:</b> Similar design with diesel engines and added side doors. <b>BTR-80:</b> Similar design with many upgrades, including greater dimensions, larger side doors, high angle-of-fire turret, new radio, single more powerful diesel engine, smoke grenade launchers, etc.</p> <p><b>MAIN ARMAMENT AMMUNITION</b> <b>Caliber, Type, Name:</b> 14.5-mm API-T Maximum Aimed Range (m): 2,000 Max Effective Range (m): Day: 2,000 Night: INA Tactical AA Range: 1,400 Armor Penetration (mm): 20 at 1,000 m/ 30 at 500 m</p> <p><b>Other Ammunition Types:</b> API, I-T</p>						

### NOTES

The APC has self-sealing tires and a central tire inflation system. A vulnerability is that troops must dismount from the top. In Afghanistan a variety of weapons were used, such as the AGS-17 automatic grenade launcher instead of the main gun. Current options include several one-man turrets, such as the Modular Weapons Station (as on BTR-80A, with a 30-mm gun), or Kliver (with a 30-mm gun, 7.62-mm coax MG, thermal sights, superior day sights, and four Kornet ATGM launchers).



## German Infantry Fighting Vehicle Marder 1

	<table><tr><th>Weapons &amp; Ammunition Types</th><th>Typical Combat Load</th></tr><tr><td>20-mm automatic cannon HEI/HEI-T API-T or APDS-T</td><td>1,250</td></tr><tr><td>7.62-mm coax MG coaxial rear/remote turret</td><td>5,000</td></tr><tr><td>Milan ATGM Launcher</td><td>5</td></tr></table>	Weapons & Ammunition Types	Typical Combat Load	20-mm automatic cannon HEI/HEI-T API-T or APDS-T	1,250	7.62-mm coax MG coaxial rear/remote turret	5,000	Milan ATGM Launcher	5
Weapons & Ammunition Types	Typical Combat Load								
20-mm automatic cannon HEI/HEI-T API-T or APDS-T	1,250								
7.62-mm coax MG coaxial rear/remote turret	5,000								
Milan ATGM Launcher	5								
<p><b>SYSTEM</b> <b>Alternative Designations:</b> INA <b>Date of Introduction:</b> 1971 <b>Proliferation:</b> At least 2 countries <b>Description:</b> Crew: 4 (3+1 squad member, who dismounts with the squad) Troop Capacity: 5 Combat Weight (mt): 29.2/35.0* for Marder 1A3 Chassis Length Overall (m): 6.79/6.88* Height Overall (m): 2.99/3.02* Width Overall (m): 3.24/3.38* Ground Pressure (kg/cm<sup>2</sup>): 0.83/0.94*</p> <p><b>Automotive Performance:</b> Engine Type: 590-600-hp Diesel Cruising Range (km): 520 Speed (km/h):     Max Road: 75     Max Off-Road: 65     Average Cross-Country: 35     Max Swim: N/A Fording Depth (m): 1.5/2.0 with preparation</p> <p><b>Radio:</b> INA</p> <p><b>Protection:</b> Armor, Turret Front (mm): Against 20 mm/30 mm* Applique Armor (mm): Available/Standard* Explosive Reactive Armor (mm): Brenus ERA available Active Protective System: N/A Mineclearing Equipment: N/A Self-Entrenching Blade: N/A NBC Protection System: Collective Smoke Equipment: 6 smoke grenade launchers</p> <p><b>ARMAMENT</b> <b>Main Armaments:</b> Caliber, Type, Name: 20-mm automatic cannon (92 Cal), Rh202 Rate of Fire (rd/min): 800-1,000 Loader Type: Dual belt feed/manual for Milan Ready/Stowed Rounds: 345 HE and 75 AP/830 stowed Elevation (°): -17 to +65 Fire on Move: No</p> <p><b>Auxiliary Weapon:</b> Caliber, Type, Name: 7.62-mm (7.62x 51) machinegun, MG3 Mount Type: Turret coax Maximum Aimed Range (m): 2,000 Max Effective Range (m):     Day: INA</p>	<p>Night: INA Fire on Move: Yes Rate of Fire (rd/min): INA</p> <p>Caliber, Type, Name: 7.62-mm (7.62x 51) machinegun, MG3 Mount Type: Rear/ turret remote Maximum Aimed Range (m): 2,000 Max Effective Range (m):     Day: INA     Night: INA Fire on Move: Yes Rate of Fire (rd/min): INA</p> <p><b>ATGM Launcher:</b> Name: Milan, Milan 2, Milan 3 Launch Method: Tube (from canister) Guidance: SACLOS Command Link: Wire Launcher Dismountable: Yes, with attached folded tripod.</p> <p><b>Firing Ports:</b> Two on each side</p> <p><b>FIRE CONTROL</b> <b>FCS Name:</b> INA <b>Main Gun Stabilization:</b> N/A <b>Rangefinder:</b> Laser <b>Infrared Searchlight:</b> Yes/removed in later variants <b>Sights w/Magnification:</b> Gunner:     Day: PERI Z 11, 2x and 6x     Field of View (°): INA     Acquisition Range (m): INA Night: IR and white light/thermal sight*     Field of View (°): INA     Acquisition Range (m): INA <b>Commander Fire Main Gun:</b> Yes</p> <p><b>VARIANTS</b> <b>Marder 1A1:</b> Variant includes PERI Z 59 II gunner night sight, and Milan launcher. <b>Marder 1A1A</b> has original night sight.</p> <p><b>Marder 1A3:</b> Variant includes applique armor package, 7.62-mm MG moved to left side coaxial turret mount, three upper hull doors. In addition the suspension and turret interior were upgraded. Extra armor blocks the firing ports.</p> <p><b>Roland:</b> German air defense missile launcher vehicle with Marder chassis.</p> <p>* Data for Marder 1A3</p>								

## German Infantry Fighting Vehicle Marder 1 continued

<p><b>VCTP:</b> Argentine Army IFV with a Marder chassis, a 720-hp engine, a 20-mm gun on a two-man turret, and two 7.62-mm MGs.</p> <p><b>TAM:</b> Argentine Army tank uses the Marder chassis and a 105-mm gun.</p> <p><b>MAIN ARMAMENT AMMUNITION</b>  <b>Caliber, Type, Name:</b>  20-mm (20x139) APDS-T, DM43A1  Maximum Aimed Range (m): INA  Max Effective Range (m):  Day: 2,000  Night: INA  Tactical AA Range: INA  Armor Penetration (mm): 32 at 1,000 m</p> <p>20-mm HEI, DM51A2/HEI-T, DM81  Maximum Aimed Range (m): INA  Max Effective Range (m):  Day: 2,000+  Night: INA  Tactical AA Range: INA  Armor Penetration (mm): INA</p>	<p>20-mm Shrapnel, DM111 (canister with forward fragment dispense)  Maximum Aimed Range (m): INA  Max Effective Range (m):  Day: INA  Night: INA  Tactical AA Range: INA  Armor Penetration (mm): INA</p> <p><b>Other Ammunition Types:</b> DM63 APDS-T, canister</p> <p><b>Antitank Guided Missiles</b>  Name: Milan  Warhead Type: Shaped charge (HEAT)  Armor Penetration (mm): 600 (RHA)  Range (m): 25-2,000</p> <p>Name: Milan 2  Warhead Type: Tandem Shaped charge  Armor Penetration (mm): 800 (RHA)  Range (m): 20-2,000</p> <p>Name: Milan 3  Warhead Type: Tandem Shaped charge with precursor charge  Armor Penetration (mm): 880 (RHA)  Range (m): 20-1,920</p>
--	---

### NOTES

German Brenus ERA and others are available for use on the Marder 1. However, during dismounted troop movement ERA would be a hazard. Thus, passive armor is more likely and ERA application is doubtful.

All Milan launchers will fire all ATGMs. However, Milan 3 countermeasures will only function with the Milan 3 launcher. All Milan launchers can mount (and many are fitted with) the MIRA thermal night sight.